

**Report of Outcomes  
of  
Utah's Licensed Direct-Entry Midwives**  
September 1, 2006 through June 30, 2007

Prepared for the  
Health and Human Services Interim Committee  
of the  
Utah State Legislature

October 30, 2007

by the

Licensed Direct-Entry Midwife Board  
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**ABSTRACT:**

*The outcomes of Utah's Licensed Direct-Entry Midwives for this time period are excellent. Necessary transfers to hospital were handled in a timely manner with good outcomes. LDEMs continue to have a remarkably low c-section rate (less than one-fifth the rate of other Utah providers). Outcomes of breech, twin, and VBAC deliveries were excellent. LDEMs appear to be using Pitocin safely and appropriately, with no injuries. Episiotomy is not being routinely performed (there were only three in this dataset). The condition of babies following their delivery by LDEMs is generally excellent with an average 5-minute Apgar score of 9.12 (out of 10), and their mothers fared equally well with all mothers well recovered at six weeks post-delivery.*

## Introduction

When the Direct-Entry Midwife Act was enacted on May 2, 2005, it included a provision (58-77-201(3)(c)) requiring the Licensed Direct-Entry Midwife board to present an annual report to the legislature's Health and Human Services Interim Committee describing the outcome data of Licensed Direct-entry Midwives (LDEMs), to be continued through 2011. This document is the second such report to the committee.

## Report Limitations

In order to better meet calendar dates of the interim committee as well the six-week period after a delivery for which data must be collected, we are once again basing this report on less than a full year of data (from September 2006 through June 2007, 10 months). With this change in dates, all future reports should cover a complete year.

## Sources of the Data

As required in the statute (58-77-201(3)(c)(ii)), this report is based largely on data reported to and extracted from the Midwives Alliance of North America (MANA) statistical database. This database is a robust collection of information about the work of direct-entry midwives, including some eight pages of information on each course of care, comprising almost 500 individual data items for each client. This database has been used to conduct research published in national and international journals, such as the recent study "Outcomes of planned home births with certified professional midwives: large prospective study in North America," published June 18, 2005 in the *British Medical Journal*.

All clients for whom data is submitted to MANA must be "logged" upon their booking of services with the midwife. This prevents the midwife from excluding data on clients with poor outcomes. Once a client is logged, the midwife must account for the outcome of that client. The data are therefore considered prospective (the gold standard for research data) and studies resulting from it are considered strongly defensible.

Occasionally, data for a client is not able to be entered in the MANA database. Sometimes it is because they were late to care, or for some reason they were not logged in time. To compile this report, therefore, in addition to data from the MANA database we used data from forms that *would have been* included in the database but could not be submitted due to technical reasons, or in some cases from other data forms reported by the midwives. These represent a minority of the cases in this report.

The additional information for this report that is not normally entered in the MANA database was entered by the LDEMs via a web-based application created for this purpose by the IT staff at DOPL. We would like to express our deep thanks to all those who worked on this system for giving us a tool that so effectively streamlined the collection and analysis of the information.

## Current Status of Licensed Direct-Entry Midwives

As of June 30, 2007, there were 16 LDEMs in Utah. During the period of this report, 240 pregnant mothers began care with an LDEM.

## Outcomes

### Transfers of Care

The administrative rules for LDEMs list many conditions that require transfer to another provider. Of these, some are waivable by the client and some are mandatory. In addition to the rules-defined transfer conditions, LDEMs may transfer care for any number of other conditions.

Of the 240 clients who began care with an LDEM, 2.9% (7) experienced a waivable transfer condition as defined by rule, and of these, 4 clients chose to waive transfer. 2.5% (6) clients experienced a mandatory transfer condition as defined by rule, and all of them were transferred in a timely manner.

The total prenatal transfer rate was 6.7% (16), of whom the majority (11) were for non-complications reasons such as moving away, changing midwives, miscarriages, or choosing to birth in the hospital.

Of the remaining 225 clients who started their labors under the care of an LDEM, 6.6% (15) were transferred to the hospital prior to the birth of the baby. All of these transfers occurred by private car; none were considered emergencies. Three mothers (1.3%) were transferred after delivery of the baby, all by private car, two were for repair of 3<sup>rd</sup> or 4<sup>th</sup> degree tears, and one for hemorrhage. All of these mothers responded well and were released, in fact the two who only required repair of the tear were never admitted to the hospital.

1.7% of babies (4) were transferred after birth, two by private car and two by ambulance.

Overall, the transfer rate from LDEM care to hospital-based provider care once labor began was 9.8%. In 20 of the 22 transfers, the outcomes were good for both mothers and babies, with no residual problems by six weeks post-delivery (mothers and babies).

### Cesarean Sections

Of the 225 laboring women under the care of LDEMs, 3.5% (8) were subsequently delivered by c-section in the hospital. The outcomes for both babies and mothers in these cases were excellent. A 3.5% c-section rate is a remarkable statistic! For comparison, the national c-section rate is 29%<sup>1</sup>, and Utah's overall c-section rate is 19%.

### Breeches, Twins, and VBACs

Some parties have expressed concern about LDEMs delivering breech babies, twins, or mothers delivering vaginally after having had a c-section (VBAC–Vaginal Birth After C-section). The statute and rules do not prohibit LDEMs from conducting these deliveries. For the 225 clients under LDEM care in this dataset, 2 babies were breech, there was 1 set of twins, and 15 deliveries were VBAC. Both breech babies and the twins were delivered by the LDEMs at home with excellent outcomes. All 15 of the VBAC deliveries were delivered vaginally at home without uterine rupture.

### Use of Pitocin (Oxytocin)

Of the clients under LDEM care who gave birth at home (210), 13.3% (28) received Pitocin (oxytocin) to stop a postpartum hemorrhage, as allowed by the statute (58-77-102(7)(f)(iv-v)). Only one of these mothers needed to be transferred for blood products. We believe this shows that the

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<sup>1</sup>Center for Disease Control/National Center for Health Statistics: National Vital Statistics Reports, Volume 55, Number 1. Births: Final Data for 2004, September 29, 2006, p. 19.

ability to legally use Pitocin has greatly improved the LDEMs' ability to safely and effectively control hemorrhages at home, resulting in better outcomes. In all 28 cases, there were no residual problems by six weeks postpartum.

### **Episiotomies**

LDEMs are permitted to cut an episiotomy (to enlarge the vaginal opening) in an emergency (58-77-102(7)(k)(ii)). Of the clients under LDEM care who gave birth at home (210), 1.4% (3) received an episiotomy. The outcomes for both mothers and babies were excellent in all cases.

### **APGAR Scores**

The Apgar Score is a measurement of newborn well-being taken at 1 minute and 5 minutes after birth. Any score 7 or above is a good score<sup>2</sup>. We have reported five-minute scores because they are most predictive of the likelihood of significant complications. Of the 210 babies born into the hands of LDEMs, 98.5% (207) had a score of 7 or better at five minutes.

### **Morbidity and Mortality**

The long term morbidity rate for mothers under the care of LDEMs during the time period of this report was 0%. The long term morbidity rate for babies born under the care of LDEMs was 0.9% (2 babies). The mortality rate for mothers was 0%, for babies 0.5% (1 baby). None of these cases of newborn complications were determined to be preventable or a result of inappropriate care provided by the midwife.

#### **Newborn Complications**

Of the 210 babies born into the hands of LDEMs, 2.9% (6) babies had complications within the first four hours. Of these, two had birth defects that were promptly referred to specialists for care, and two had problems that resolved spontaneously or with home care provided by the midwife.

#### **Maternal Complications**

Of the 210 women who delivered at home, 97.6% (205) experienced a postpartum with no significant complications. The 2.4% (5) mothers who did have complications recovered well by six weeks postpartum.

## **Analysis**

The outcomes of Utah's Licensed Direct-Entry Midwives for this time period are excellent. Necessary transfers to hospital were handled in a timely manner with good outcomes. LDEMs continue to have a remarkably low c-section rate (less than one-fifth the rate of other Utah providers). Outcomes of breech, twin, and VBAC deliveries were excellent. LDEMs appear to be using Pitocin safely and appropriately, with no injuries. Episiotomy is not being routinely performed (there were only three in this dataset). The condition of babies following their delivery by LDEMs is generally excellent with an average 5-minute Apgar score of 9.12 (out of 10), and their mothers fared equally well with all mothers well recovered at six weeks post-delivery.

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<sup>2</sup>Center for Disease Control/National Center for Health Statistics: National Vital Statistics Reports, Volume 55, Number 1. Births: Final Data for 2004, September 29, 2006, p. 24.